

CLAIMS

What is claimed is:

1. A method for providing coverage for access to a wireless communication system comprising the steps of:
 - locating wireless communication equipment in a first group of cells, the first group of cells located in a first defined area; and
 - simulcasting radio signals on a common radio frequency (RF) carrier in the first group of cells, such that handoff does not occur while a mobile unit travels along at least a portion of the defined area between the cells therein.
2. A method as in claim 1 wherein the defined area is a corridor along which vehicles travel.
3. A method as in claim 2 additionally comprising the step of:
 - locating wireless communication base station transceiver equipment at a cell located at a junction between at least two corridors along which vehicles travel.
4. A method as in claim 3 wherein different RF carriers are assigned to the first group of cells and to the cell at the corridor junction location so that handoff from one RF carrier to another R carrier occurs only at the corridor junction location.
5. A method as in claim 3 wherein the corridors are subway tunnels.
6. A method as in claim 5 wherein the junction is a subway station.

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7. A method as in claim 3 wherein the corridors are railway tracks.
8. A method as in claim 7 wherein the junction is a railway station.
9. A method as in claim 3 wherein the junction is at an area of expected slow speed mobility.
10. A method as in claim 1 wherein the defined area is an area of expected high speed mobility.
11. A method as in claim 1 wherein the wireless communication equipment located in the first group of cells further comprises Remote Antenna Driver (RAD) equipment.
12. A method as in claim 3 wherein the vehicles travel along the corridor according to an expected schedule, and radio channel allocation is made to the first group of cells according to the schedule.
13. A method as in claim 12 wherein the schedule indicates an expected time of travel of a vehicle through the defined area, and the radio channel allocation is made for such times.
14. A method as in claim 12 wherein the schedule indicates an expected time of travel of a vehicle through the junction without stopping, and the radio channel allocation is maintained for mobile units crossing from one of the first group of cells into a cell located at the corridor junction location.
15. A method as in claim 1 wherein the step of simulcasting additionally comprises the step of simulcasting a first set of radio carrier frequencies.

16. A method for providing wireless communication service in an area in which a base transceiver station with a tower mounted antenna carries telephony signals between wireless communication devices operating in said area and a network communication system, said method comprising:

transmitting a communication signal from said base transceiver station to a plurality of remote transmitters physically located in another contiguous area at the same time that said communication signal is transmitted to a wireless communication device that is operating in part of said area using said tower mounted antenna; and

re-transmitting said communication signal to said wireless communication device using said remote transmitters as said wireless communication device travels through respective portions of said area covered by said remote transmitters.

16. A method for providing wireless communication service in an area in which a base transceiver station with a tower mounted antenna carries telephony signals between wireless communication devices operating in said area and a network communication system, said method comprising: